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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,289	11/18/2005	Takashi Nagashima	10873.1776USWO	7622

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EXAMINER	
EVANS, GEOFFREY S	
ART UNIT	PAPER NUMBER
3742	
MAIL DATE	DELIVERY MODE
03/18/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/557,289	NAGASHIMA ET AL.	
	Examiner	Art Unit	
	Geoffrey S. Evans	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) *5-14 and 21-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,15-18,20 and 26-28* is/are rejected.

7)☒ Claim(s) *3,4, and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt in U.S. Patent No. 3,538,308. Schmidt discloses a first electrode (E_o), a second electrode (E_1) a discharge energy supply section (see circuit in figure 1 and column 2, lines 63-67). Regarding claims 2 and 18, Schmidt further discloses an insulator (element I) between the two electrodes and covering the entire first electrode except for a small portion. Limitations to the workpiece are not being given patentable weight in an apparatus claim.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kerlin in U.S. Patent No. 4,501,947. Kerlin discloses first and second electrodes (20, 21) and a discharge energy supply section for supplying current (see circuit in figure 1). Limitations to the workpiece are not being given patentable weight in an apparatus claim.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerlin in U.S. Patent No. 4,501,947 in view of Salsgiver et al. in U.S. Patent No. 4,931,613. Salsgiver et al. discloses in column 5, lines 15-26 that discharges will create a plasma gas cloud between the electrode and the workpiece (the workpiece in Salsgiver et al. is the equivalent of one of the electrodes in Kerlin). It would have been obvious to adapt Kerlin in view of Salsgiver et al. to provide this to level of power to increase material removal which would create a plasma, which would further assist in removing material.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kerlin in U.S. Patent No. 4,601,947 in view of le Fur et al. in U.S. Patent No. 4,425,496 and Yuasa et al. in U.S. Patent No. 5,523,687. Kerlin discloses using two electrodes opposed to a workpiece, the electrodes being supplied with electric discharge energy to remove material from the workpiece. Kerlin does not disclose that the workpiece is a metal coating on a surface of a resin. Le Fur et al teach removing a metal coating from

a dielectric support material. Yuasa et al. teaches that metal coatings (aluminum film) can be supported by a plastic (resin). It would have been obvious to adapt Kerlin in view of le Fur et al. in view of Yuasa et al. to provide this to use the apparatus of Kerlin to remove a metal coating provided on a surface of a resin.

8. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerlin in view of le Fur et al. and Yuasa et al. as applied to claim 20 above, and further in view of Salsgiver et al. in U.S. Patent No. 4,931,613. Salsgiver et al. teach that discharges will create a plasma gas cloud between the electrode and the workpiece (the workpiece in Salsgiver et al. is the equivalent of one of the electrodes in Kerlin). It would have been obvious to adapt Kerlin in view of le Fur et al., Yuasa et al. and Salsgiver et al. to provide this to increase material removal. The plasma created by removing material from at least one of the electrodes requires a preliminary discharge between the electrodes for plasma creation.

9. Applicant's arguments filed 22 December 2009 have been fully considered but they are not persuasive. Kerlin discloses removing material from a workpiece by discharges between two electrodes. As such it is capable of removing a metal coating from a resin as recited in claim 1. Please note that limitations directed to the workpiece are not given patentable weight in apparatus claims. Regarding claim 20, Le Fur et al. teach that a removing a metal coating from a dielectric support by a discharge process (corona discharge) is known. A corona discharge process is a related field to removing material by an electric arc. If a metal coating can be removed by corona discharge

then the much more powerful process of removing material by discharges between two electrodes can remove material from such a workpiece.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Claims 3,4, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S. Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 7:00AM to 3:30 PM (flexible).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571)-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey S Evans/
Primary Examiner, Art Unit 3742